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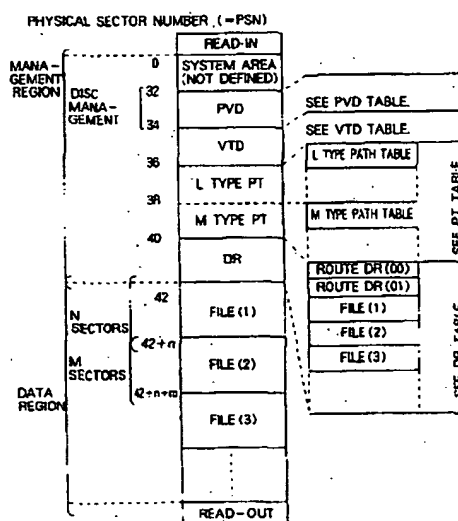
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(54) Recording medium and reproducing apparatus thereof

(57) In a PVD table of a management region on the disc, a disc identifier 1 that represents the type of the data recording format of the disc, a number-of-disc-sides identifier 2 that represents whether the disc is a single-sided disc or a double-sided disc, and a disc side identifier 3 that represents whether the reproducing disc is side A or side B of a double-sided disc. A disc identifier 4 that represents the type of the data recording format of the file is recorded in a file (n) table including management information of the file. The reproducing apparatus reads the disc identifiers 1 and 4 from the PVD table and the file (n) table and determines whether or not the disc and the file are reproducible. In addition, the reproducing apparatus reads the number-of-disc-sides identifier 2 from the PVD table and determines whether or not the disc is a double-sided disc or a single-sided disc. When the disc is a double-sided disc, the reproducing apparatus determines whether the reproducing side is side A or side B.

FIG. 1

PHYSICAL SECTOR SIZE : 1024 BYTES
LOGICAL SECTOR SIZE : 2048 BYTES
LOGICAL BLOCK SIZE : 1024 BYTES



DISC STRUCTURE

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EUROPEAN SEARCH REPORT

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
X	EP-A-0 570 203 (MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.) * column 3, line 28 - column 5, line 34 * * column 7, line 19 - line 34 * * column 9, line 19 - column 13, line 28 *	2,16	G11B27/32 G11B27/10 G11B19/02 G11B19/12 G11B20/12
A	---	1,3,15, 17-20	G11B27/34 G11B23/36 G06F17/30 //H04N5/926
P,X	EP-A-0 644 692 (K.K.TOSHIBA) * the whole document *	1,15	
P,A	---	2-6, 12-14, 16-20	
E	WO-A-95 12179 (TIME WARNER ENTERTAINMENT CO., L.P.) * the whole document *	1,6,12, 14,15,20	
E	EP-A-0 714 098 (K.K.TOSHIBA) * the whole document *	1,15	
E	EP-A-0 724 264 (K.K.TOSHIBA) * the whole document *	1,15	TECHNICAL FIELDS SEARCHED (Int.Cl.6)
E	WO-A-96 16406 (PHILIPS ELECTRONICS N.V. ET AL.) * page 8, line 21 - page 11, line 10; claims 1-17 *	1,6,10, 11,15	G11B H04N G06F
E	EP-A-0 691 652 (SONY CORPORATION) * column 4, line 34 - column 23, line 48 *	1,6,8, 10,15	
E	EP-A-0 676 894 (SONY CORPORATION) * the whole document *	1,15	

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The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 2 October 1996	Examiner Daalmans, F
CATEGORY OF CITED DOCUMENTS		I : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons S : member of the same patent family, corresponding document	
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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
E	EP-A-0 691 651 (SONY CORPORATION) * column 4, line 51 - column 29, line 23 *	1,6,8, 10,15	
A	WO-A-94 07332 (SONY CORPORATION) * page 20, line 8 - page 47, line 4 *	1-3,6, 15-20	
A	EP-A-0 521 487 (SONY CORPORATION) * the whole document *	1,3,6, 10-20	
A	EP-A-0 459 157 (NEC HOME ELECTRONICS, LTD.) * the whole document *	1-3,6, 15-20	
A	EP-A-0 325 325 (PHILIPS AND DU PONT OPTICAL COMPANY) * the whole document *	1-3,6, 15-20	
A	EP-A-0 542 377 (PHILIPS ELECTRONICS UK LIMITED) * the whole document *	1-3,6, 10,12, 13,15-20	TECHNICAL FIELDS SEARCHED (Int.Cl.6)
The present search report has been drawn up for all claims			
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<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>I : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document</p>			

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